

AMENDMENTS TO THE CLAIMS

1-4. (Canceled).

5. (Currently amended) A method of operating a falling film plasma reactor comprising the step of flowing a liquid dielectric over a surface of a first electrode wherein a particulate or particulate mixture enters the Falling Film Plasma Reactor, flows into ~~the~~ an annular region comprising ~~the~~ a plasma, the dielectric or conductive liquids, any solid surfaces of the reactor, and any gas or gas mixture, and contacts simultaneously or in sequence the plasma, the liquids, any solid surfaces of the reactor, and any gas or gas mixture; whereupon components of said particulate or particulate mixture react with components of the plasma, the liquids, and any solid surfaces of the reactor; ~~whereby~~ modifying the components of said particulate or particulate mixture ~~are modified~~ and ~~subjected to~~ subjecting said components to further contact and processes comprising the plasma, the liquids, any solid surfaces of the reactor, and any gas or gas mixture; where the plasma, the liquids, any solid surfaces of the reactor, any gas or gas mixture, and said particulate or particulate mixture are acted upon by a secondary ~~processes comprising~~ process that comprises at least one of changes in flow, composition, reactivity, temperature, pressure, contact duration, and contact sequence; ~~whereupon results comprising~~ achieving a result that comprises at least one of decomposition, formation, combination, separation, recovery, circulation, and exhaust ~~are achieved through multiple processes.~~

6-20. (Canceled)

21. (Currently amended) The method of Claim 5, wherein said particulate or particulate mixture, is said particulate ~~mixture~~.

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22. (Currently amended) The method of Claim 5, wherein said particulate or particulate mixture, is said particulate mixture ~~wherein said dielectric or conductive liquids, is said dielectric liquid.~~

23. (Currently amended) The method of Claim 5, wherein said dielectric or conductive liquids, is said dielectric liquid ~~conductive liquid.~~

24. (Currently amended) The method of Claim 5, wherein said dielectric or conductive liquids, is said conductive liquid ~~wherein said contacts simultaneously or in sequence, is said simultaneously.~~

25. (Currently amended) The method of Claim 5, wherein said contacts simultaneously or in sequence, is said simultaneously ~~in sequence.~~

26. (Currently amended) The method of Claim 5, wherein said contacts simultaneously or in sequence, is said in sequence ~~wherein said gas or gas mixture, is said gas.~~

27. (Currently amended) The method of Claim 5, wherein said gas or gas mixture, is said gas mixture.

28. (Currently amended) The method of Claim 5, wherein said gas or gas mixture, is said gas mixture ~~wherein said secondary processes comprise said changes in flow.~~

29. (Currently amended) The method of ~~Claim 28~~ Claim 5, wherein said secondary processes comprise said changes in flow ~~changes in temperature.~~

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30. (Currently amended) The method of ~~Claim 5~~ Claim 29, wherein said secondary processes further comprise said changes in temperature ~~comprise changes in contact sequence~~.

31. (Currently amended) The method of Claim 5, wherein said secondary processes comprise changes in contact sequence ~~results comprise decomposition~~.

32. (Currently amended) The method of ~~Claim 31~~ Claim 5, wherein said results comprise decomposition ~~further comprise formation~~.

33. (Currently amended) The method of ~~Claim 5~~ Claim 32, wherein said results further comprise formation ~~comprise formation~~.

34. (Currently amended) The method of Claim 5, wherein said results comprise formation combination.

35. (New) The method of Claim 5, wherein said results comprise combination.

36. (New) A method of operating a falling film plasma reactor comprising the steps of flowing a liquid dielectric over a surface of a first electrode, and creating a plasma in an annular space between said first electrode and a second electrode, and introducing a first reagent into said annular space.

37. (New) The method of Claim 36, further comprising the step of creating a new chemical constituent.